

Euclid E8200 Series - Magnetic Stripe with Overprinting Label Application & Camera Matching



THE E8200 PRINT PERSONALISATION SYSTEM

The Euclid E8200 Print Personalisation System provides a fully secure, fast, reliable and accurate facility to encode, verify, overprint and label cards and tickets at up to 10,000 items per hour.

The Euclid E8200 will encode and verify loco or hico magnetic stripe on all three tracks, overprint multiple fields of variable or fixed data (including bar codes) and camera verify the printed data for print position, accuracy and quality. The labeller can dispense a range of label sizes to any position on the card. A second camera provides automatic verification of label placement. A reject mechanism will cull out any cards which fail magnetic, print or label verification. The inclusion of high speed camera technology to scan all print data and label position ensures that all cards which pass system inspection are correct, thereby precluding the need for secondary, off-line inspection.

The Euclid E8200 comprises a complete system including its own integral PC controller with flat LCD screen and Windows based software.

The Euclid 8200 is based on technology developed by the company and proven in commercial use worldwide over several years.

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OPERATION

The Euclid E8200 is controlled from an integral PC which runs a single, Windows based, software package. Cards are stream fed from the input hopper, encoded and verified, overprinted and camera verified, labelled with further camera verification before being stacked onto a conveyor. In the event any card should fail a verification process it is culled out onto a secure separate conveyor. Remakes are carried out in sequence order which ensures no need to manually insert after the event.

A single operator can manage this system with ease, personalising up to 10,000 cards per hour.

SECURITY

The design of the Euclid E8200 machine ensures that security sensitive data is not disclosed. All critical areas within the machine are shielded from an operator. Access to the transport areas and printer head is by key lock and all covers have electronic interlock protection. Data files are protected by an embedded key in the form of a DLL, encrypted at the source and decrypted within the system. Data being printed cannot be viewed. Control via the application software held on the integral PC is protected by three levels of password access: Master, Supervisor and Operator.

QUALITY ASSURANCE

Accuracy

Printing accuracy is ensured by the inkjet head mounted above the vacuum bed. A high resolution shaft encoder working in conjunction with slotted optical card sensors ensures positional accuracy and repeatability of print. The labeller is on a heavy duty micrometer platform and likewise to the print control, a high resolution shaft encoder/slotted optical card sensor combination ensures the positional accuracy and repeatability of the scratch panel. Automatic sensing and handling of material run out is included.

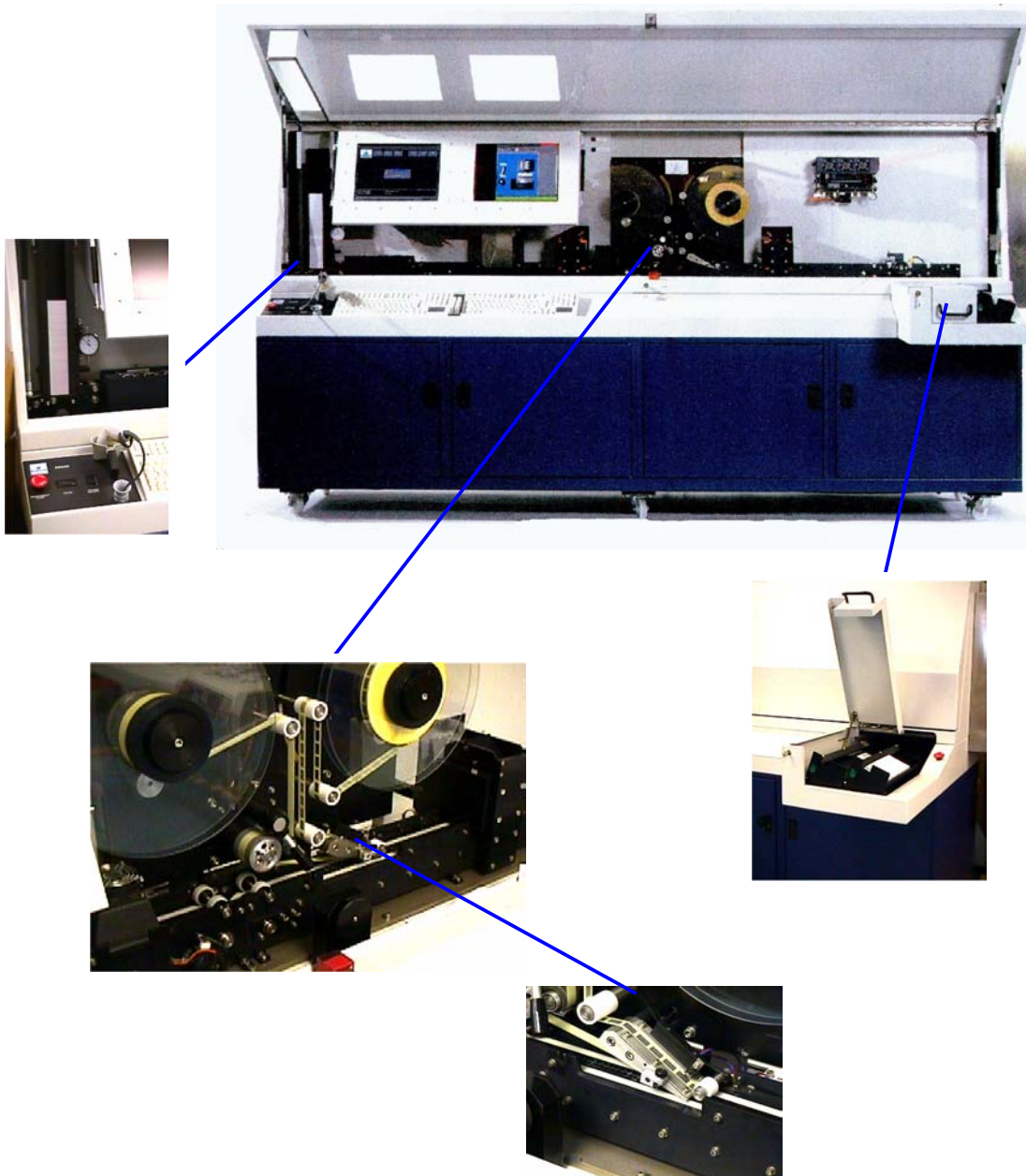
Verification

This system utilises two camera verification stages to test card quality. Following print, the first camera scans each card and its variable detail (characters, definition and position) is checked for accuracy. If a card is improperly printed, it passes through the transport, bypassing label application, and is diverted onto a secure reject conveyor. After scratch-panel label application, a second camera ensures the scratch panel applied has completely obscured the printed pin number. The reject conveyor, which may contain cards that have been printed but not scratch panelled, requires key access. If more than three consecutive cards are rejected, the process is halted to enable operator/supervisor intervention.

TECHNICAL SPECIFICATION

- ▲ 500 card input hopper capacity
- ▲ 10,000 cards per hour encode/ verify/ print and camera scan
- ▲ Single or multiple track encode
- ▲ Hico/ loco
- ▲ Multiple field overprint, fixed or variable data, including bar codes
- ▲ High resolution CCD camera scanning with full OCR capability
- ▲ Simple and speedy camera setup – typically 20 minutes per card type
- ▲ Adjustable for card thicknesses in the range 250 microns (0.010 in.) to 750 microns (0.030 in.)
- ▲ Single colour, menu-driven Windows package for simplicity, controlling transport, encoder, camera and Domino Bitjet printer
- ▲ Control PC accessibility password protected
- ▲ Datafile upload by network connection, CD/ floppy drive or keyboard entry
- ▲ Low card loss through rejects
- ▲ Unlimited number of Save/ Recall formats for frequent jobs.
- ▲ Modular transport construction
- ▲ Two models available E8200A / E8200B
 - 'A' has two Domino A400 inkjet printers for up to two lines of alphanumeric data lengthwise
 - 'B' has a Domino Bitjet 212 inkjet printer for multiple print fields anywhere on the surface of the card including across the short side

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MAGNETIC STRIPE CHARACTERISTICS

Standards: ISO 7811-2, 7811-4 and 7811-5 and centre stripe for ticketing applications.

Encoding mode:

- Read only: Data from all three tracks can be read and stored in a data file.
- Loco encoding: Data is encoded and verified on any combination of tracks 1, 2 and 3 at 300 Oersted.
- Hico encoding: Data is encoded and verified on any one selected track; 1, 2 or 3, at 2750 Oersted.

Encoding density:

- Data is encoded at 210 bpi or 75 bpi data rates in accordance with ISO 7811-2 and 7811-6.
- Selected non-ISO bpi densities are available for special applications.

PRINTER SPECIFICATIONS

Euclid E8200A - Domino A400 Inkjet Printer

- Character height: Min. 3.0 mm (0.118 in.)
Max. 8.5 mm (0.334 in.)
- Character width: Variable by software setting.
- Character spacing: Single/Double by software setting.
- Bar code types: Interleaved 2 of 5, Code 39, USPS, EAN/UPC, Codabar, Code 128.
- Print position: The print head location across the height of the card is adjustable by means of a heavy duty micrometer platform.
- The print position from the leading edge of the card is adjustable in the software. The total range of adjustment includes the entire card face.

Euclid E8200B - Domino Bitjet 212 Inkjet Printer

- The Bitjet print head contains 256 addressable points with a maximum resolution of 120 dpi vertically x 240 dpi horizontally over the entire card face. The printer has the ability to print a mix of character heights and all common font formats available from Microsoft® Windows NT®, combined with any monochrome graphic.
- Bar code types: Interleaved 2 of 5, Code 39, Extended Code 39, Codabar, Code 128, Postnet, 2D, OCR, Planet, 4-State and UPC/EAN.
- Print position: The print head covers the whole of the card height, allowing printing in any position on the card through software setup.

LABELLER REQUIREMENTS /SPECIFICATIONS

- Web width: 15 mm (0.590 in.)
- Minimum label length: 12 mm (0.472 in.)
- Maximum label length: 80 mm (3.149 in.)
- Minimum label height: 4 mm (0.157 in.)
- Maximum label height: 13 mm (0.512 in.)
- Minimum label spacing: 3.5 mm (0.138 in.)
- Maximum label spacing: 10mm (0.394 in.)

ENVIRONMENTAL REQUIREMENTS

- Operating temperature 13°C - 27°C
- Relative Humidity 20% - 85% non condensing

POWER REQUIREMENTS

- Voltage: 110 -240 VAC, 50/60 Hz
- Power: 1650 W

DIMENSIONS

Height (excluding beacon)	1490 mm (58 in.)
Width (including cleaning station)	2870 mm (113 in.)
Depth	1035 mm (41in.)
Approximate Weight	700 kg (1540 lb.)